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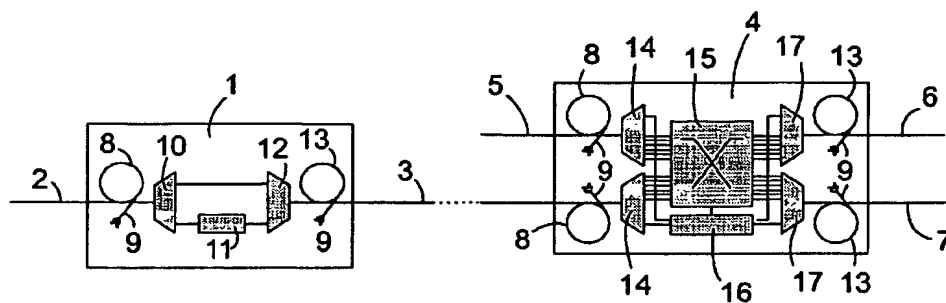
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(54) Title: OPTICAL NETWORK AND AMPLIFIER NODE THEREFORE



(57) Abstract: An optical network comprises a transmitter node (1), a receiver node (4) and an optical fibre (3) for transmitting an optical wavelength-division multiplex signal having payload channels and a supervisory channel between the nodes (1, 4). At least one of the nodes has an amplifier (8, 13) which is passed by the multiplex signal. The transmitter node (1) has a source (11) for the supervisory channel and a multiplexer (12) for combining the payload channels and the supervisory channel in order to form the optical wavelength-division multiplex signal, and the receiver node (4) has a sink (16) for the supervisory channel and a demultiplexer (14) for separating the wavelength-division multiplex signal into supervisory and the payload channels. The multiplexer (12) and the demultiplexer (14) are adapted to insert and extract, respectively, as the supervisory channel, a wavelength into/from the optical multiplex signal, the attenuation of which between source (11) and sink (16) is essentially the same in the pumped and unpumped states of the amplifier (8, 13).

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